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No 2014-27 – December

Working Paper

CEPII

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Highlights

- International competition in high-end varieties can be studied at the 6-digit level of the international classification of traded products by exploiting the distribution of unit values of traded goods.
- Exports of high-end varieties are less sensitive to distance than other varieties.
- Exports of high-end varieties are more sensitive to destination country wealth than other varieties.
- Only countries already producing a large range of luxury brands benefit from this sensitivity to wealth.

RESEARCH AND EXPERTISE ON THE WORLD ECONOMY

Abstract

We study international competition in high-end varieties for 416 detailed HS6 product categories marketed by the leading French luxury brands. We construct a world database of trade flows for these products, computing unit values of related bilateral trade flows and analyzing competition among the main exporters. We use the observed distribution of unit values to define a high-end market segment. Exports of high-end varieties are shown to be less sensitive to distance, and found more sensitive to destination country wealth than other varieties, but only in relation to countries already producing a large range of luxury brands, pointing to a first-mover advantage.

Keywords

Product differentiation, Market shares, Unit values.

JEL

F12, F15.

Working Paper

CEPII

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CEPII Working Paper
Contributing to research in international economics

Editorial Director:
Sébastien Jean

Production:
Laure Boivin

No ISSN: 1293-2574

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RESEARCH AND EXPERTISE ON THE WORLD ECONOMY

EUROPEAN HIGH-END VARIETIES IN INTERNATIONAL COMPETITION[1]

Lionel Fontagné* and Sophie Hatte†

1. INTRODUCTION

The upgrading of emerging countries' capabilities combined with rapid GDP and export growth have led to a profound redistribution of world market shares of manufactured goods since the mid 1990s. China stands out: its international market share for goods increased to 18.5% in 2010, three times its share in 1995 (6.3%).[2] Until the crisis, European commercial performance was proving more resilient (resp. 17.7% in 2010 and 20.7% 1995 – but 18.9% in 2007) than US or Japanese performance.

Cheptea *et al.* (2014) shows resilience of EU market shares in the higher market price ranges, although to a lesser extent for high-technology products, with European producers benefitting from cumulative preferences for certain products, incremental innovation, and market power. On the demand side, a large share of high-priced goods in EU consumption and exports is in line with demand-side explanations (Hallak, 2006; Schott, 2004; Fontagne *et al.*, 2008). The production function for this segment of the market is generally skill or R&D intensive, which leaves space for a supply-side explanation of this statistical regularity (Goldberg & Pavcnik, 2007; Verhoogen, 2008; Fontagne *et al.*, 2008). In addition, recent European integration has led to large differences within the Single European Market in labor costs, skills, and ultimately, comparative advantages. EU based firms have been able to exploit advantages in high-priced goods combined with more affordable labor costs in newly acceded countries.

At the forefront of this market positioning of European industry, there is a very specific tier of the upper price range in the market that is worth analyzing. Many traditional, high-end handicrafts industries have

[1]This paper has benefited from financial support from the "Mondialisation et Développement" (GMonD) group of the Paris School of Economics (PSE). We are grateful to Matthieu Crozet for useful comments on a previous version. The views expressed in this paper are those of the authors and not be GMonD or its financial partners.
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[2]We exclude oil and intra-EU trade.

managed to sustain European brands and know-how in sectors nearly decimated by competition from low-wage countries. The related activities are often associated with luxury brands and are intensive in design, advertising, and cumulative innovation. This paper examines this specific tier of the market, called here the high-end or luxury segment alternatively. We study the recent export performance of these (tiny) segments of the industry and the main players. Specifically, we ask whether the demand for luxury goods is different in terms of sensitivity to trade cost or income.

An obvious difficulty related to assessing world competition in the high-end segment of the market is inadequate classification of traded products. Despite a reasonable knowledge of the firms selling high-end products, there is no official list of such luxury goods. Starting from the finest level of detail of international classification (6-digit Harmonized System - HS6), we propose a tentative list of 416 product categories (out of more than 5,000 HS6 codes) possibly containing luxury varieties. We recover these HS6 categories from the products exported by the firms belonging to the French association of luxury goods (*Comité Colbert*). Members present themselves as "[a club] of 78 French luxury houses and 14 cultural institutions [working] together to promote French art de vivre at international level".[3] Then, we consider the universe of countries exporting these product categories and ask whether they export luxury varieties, or simply products classified within the same category – e.g. handbags. Indeed, not all varieties within these HS6 product categories can be defined as luxury and we focus on the flows corresponding to the upper tier of the distribution of market prices. Since we do not observe prices, we have to rely on the unit values of traded products. For each selected (HS6) product category, we classify as trade in high-end varieties, the goods k exported from country i to country j in year t at a price above a certain threshold $\widetilde{u_{kt}}$. Hence, luxury varieties are identified on the basis of prices which are independent from the exporting country or market considered. Within a given HS6 item of the classification of products, a given exporting country might well ship luxury goods to a given market, and standard goods to another market. We do not observe exporting firms, and the exporter can be different in both cases; alternatively the same exporting firm can vertically differentiate her products to reach more destinations. Finally, notice that a given country can enter or exit the luxury segment of the market

[3] The objective of the *Comité Colbert* is “to collectively promote [member’s] shared values in France and internationally”. See website of the *Comité Colbert*: http://www.comitecolbert.com. The selection of products was made independently.

over time.

Thus, our approach is based on products and unit values, not firms (although the product mix of *Colbert* firms is initially used to define the list of relevant products). The aim is to observe the world matrix of bilateral trade flows for these products, which constrains our choice,[4] and means that initially we need to consider all firms in a given country, exporting in a given product category to a given market, within each year period, as an aggregate.

As expected, we observe that Europe is still the main player for luxury goods, with half of world exports of high-end varieties. However, there has been a profound reshaping of world market share due to a sharp increase in Chinese exports. These are mainly in the textile sector, where product differentiation has been very weak protection for producers in rich countries. If we exclude this sector, we observe European market share resilience in a buoyant world market, which translates into a sharp increase in the value of exports.

We explore what determines export performance in the high-end market segment using our aggregated data (annual exports of each selected HS6 product exported in the high-end segment of the market by a country to a particular market) for 176 countries. We rely on a standard gravity framework to assess the determinants of trade flows. We are interested in assessing whether these determinants differ from the usual ones. We find that the exporters of high-end products suffer less from distance than the exporters of other goods. This result is also emphasized by Martin & Mayneris (2013), who focus on French exports using customs data for individual firms. Martin & Mayneris (2013) find also that high-end export(er)s are more sensitive to the average income in the destination country. When we consider cross-country evidence for the whole set of exporters we find that the average effect of the importing country's wealth is relatively lower – and not higher – for high-end varieties. We address this apparent contradiction related to micro and aggregate data and show that only some exporting countries (including France - and thus the Colbert firms analyzed in Martin & Mayneris (2013), Italy, and Switzerland) benefit more from importers' wealth in the case of exports of high-end varieties than from

[4] Martin & Mayneris (2013) and Ray & Vatan (2013) use individual firm data and consequently consider only French exports.

exports of other products. Finally, we find that the effect of a destination country's wealth is positively and significantly driven by the number of luxury brands in the exporting country.[5] The bottom line is that only some exporting countries, home to some very well known luxury brands, export more high-end than other goods to rich destinations. This highly selective club of exporting countries, capitalizing on their historical reputation for production and export of luxury goods, benefits more from increasing living standards in importing countries.

The rest of the paper is organized as follows. The related literature is reviewed briefly in Section 2. Section 3 presents the data and the assumptions made when selecting the 416 HS6 product categories and defining the high-end segment of the market. It also presents the descriptive statistics for the redistribution of world market shares in the high-end segment. Section 4 describes our econometric estimation strategy, and summarizes the results. Section 5 concludes.

2. LITERATURE REVIEW

Recent advances in trade theory and empirics have led to a profound reshaping of our understanding of the patterns of international trade.

Traded goods are differentiated horizontally (in terms of variety) and vertically (in terms of quality). Economies of scale and the necessity to amortize the development costs for each new variety impose a limit on the economic affordability of product diversity. The capacity to offer more varieties is determined by the size of the industry output, which is determined by country size and comparative advantage (Krugman, 1980). Hummels & Klenow (2005) find that large countries export higher quality goods and not just more varieties of these goods. The larger or more sophisticated and wealthier the domestic market, the higher the quality of the products supplied to the local consumer (Motta *et al.*, 1997). As a result of this orientation of domestic demand, and the skill content of production, the capacity to offer high-end varieties is positively related to exporting country's income per capita (Falvey & Kierzkowski, 1987; Flam & Helpman, 1987; Hallak, 2010). In general, high income countries, conditional on sector

[5] We calculate the number of brands classified in the top100 most valuable luxury brands ranking by the *World Luxury Association*, by exporting country. Data available at: http://www.top100luxury.com.

characteristics, engage in more intensive bilateral trade, which is in line with Linder's seminal hypothesis (Linder, 1961).

Another departure from the traditional theory is represented by consumer preferences. For simplicity, theories that address mainly the supply side determinants of trade, usually assume homothetic and homogenous consumer preferences. This assumption contrasts with frequent evidence provided by gravity equations, that similarities in income per capita are a driver of bilateral trade when controlling for economic size. Introducing non-homothetic preferences in trade theory addresses several puzzles (Markusen, 2013): increasing income inequalities, missing trade, home bias in consumption habits, higher prices in high income countries, and dependence of the values of bilateral trade on income per capita controlling for economic size. Simonovska (2010) shows that variable mark-ups account for 80% of the positive price-income relationship observed for 123 countries. This has important consequences for our understanding of the underlying forces of international specialization. Reimer & Hertel (2010) show a strong correlation between the factor content of consumption and per capita income in the presence of non-homothetic preferences, and that accounting for this helps to resolve the puzzle related to missing trade. Fieler (2011) shows that bilateral trade relationships for 162 countries can be better predicted if the usual assumption of homotheticity is relaxed – in particular for countries of different sizes and income levels. Crozet *et al.* (2012) give a quality interpretation of the Melitz model of firm heterogeneity. They use firm-level export data with expert assessments for the Champagne producers' quality, to estimate the key parameters of the model. Though demand for Champagne increases with income per capita, higher quality increases exports within all income categories.

In this context, there is room for exporters to ship goods belonging to similar categories, at very different price and cost level. The increasing similarity in the categories of products exported by countries at different levels of economic development, at very different prices, has received increased attention in the empirical literature following the seminal study by Schott (2004). Fontagne *et al.* (2008) consider all products, exporters and importers (a panel of 163 countries over 10 years) and define three market segments. They explain the value of bilateral exports in each market segment. They show that low price

goods are more sensitive to distance than high price ones and that richer countries tend to export more goods in the upper segment of the market. However, their definition of the "upper segment" of the market is very broad and covers one third of the value of the world market for each product. A more specific study of the exclusive products at the very top of the vertical differentiation ladder requires a different approach.

Martin & Mayneris (2013) rely on French customs data to consider those firms (actually the statistical units defined by their administrative identifier) that define themselves specifically as exporters of luxury goods (recorded as members of the *Comité Colbert* referred to above). Not all French exporters of luxury goods belong to this trade association, and Martin & Mayneris (2013) also consider non-members exporting from France within the same product categories at similar (high) prices. They compare these exporters of high-end varieties to low-end variety exporters. High-end variety exporters do not export to more countries, but do trade with more distant markets because of the lower sensitivity to distance of high-end variety exports. High-end variety exporters are also more prone to shift toward fast-growing economies, and accordingly to reap the benefits of the redistribution of world growth towards emerging economies. Martin & Mayneris (2013) finally show that high-end French exporters are more sensitive to average income in the destination country. The final picture is one of high-price niche good producers that export a small number of products to a small number of countries but, on average, manage to reach more distant and more promising markets. Ray & Vatan (2013) address a different issue: rather than studying the impact of average wealth of the destination market on exports of high-end products, they study the impact of income distribution, based on the assumption of social interactions shaping individual preferences. Using the same French data on exporters of high-end products, they show that the mean unit value of exports in a given product category, increases with the Gini index of income dispersion in the destination country. Countries with more dispersed income show a higher willingness to pay for the attributes provided by high-end products.

In contrast with these papers, we start from a world trade database and consider the whole range of exporting countries and markets for high-end products. We also directly rely on the distribution of unit

values between exporting countries at product level to classify flows and identify the luxury segment within the relevant HS6 categories. Finally we distinguish between countries with a long history of high-end producers and well-established luxury brands, and others.

3. DATA, ASSUMPTIONS AND DESCRIPTIVE STATISTICS

Data and assumptions

We consider the universe of exporting and importing countries of 416 selected HS6 product categories and need information on the world distribution of unit values for these product categories in order to identify flows corresponding to high-end varieties. To proceed, we use the BACI dataset.[6] BACI is a world trade dataset developed by the CEPII. It draws on UN COMTRADE data and provides consistent data on bilateral trade. For each bilateral flow classified by HS6, BACI reports a unique FOB value, quantity, and unit value which takes account of the declarations of both exporters and importers. This reconciliation is based primarily on Cost Insurance Freight (CIF) values reported by importers, treated to enable comparison with exporters' FOB values which allows estimation of the reliability of each country reporting (Gaulier & Zignago, 2010). BACI is an exhaustive database and covers trade for more than 200 countries and 5,000 product categories. Trade flows are considered as FOB, allowing comparisons clear of transport costs. Also, data are reconciled, correcting for erroneous declarations by one of the two trading countries.

It is important to note that the unit value is not the price: higher unit values for certain exporting countries or in certain destination markets may simply be the result of variety composition effects within product categories at the HS6 level, rather than higher prices for a given quality. Conversely, unit values may not capture the fact that high-end varieties cross borders at a unit value not too different from the mean, and then very high mark-ups are applied to these varieties by the wholesale and retail sectors. These are important issues, even if their impact is minimized by considering the extreme upper segment of the distribution of unit values of the traded products. This then, can introduce a second difficulty since extreme (high or low) unit values may be flawed by declaration errors. In order to try to reduce some of

[6] See http://www.cepii.fr/anglaisgraph/bdd/baci.html.

the noise in the data, we clean our database of outliers at the exporting country and product levels and consider the 1995-2009 period. Having constructed our database, we compute the market shares of the exporting countries, at the sectoral level for the so called "high-end tier" of the market. We analyze the country-specific export performances, based on these market shares, in the next subsection. Finally, note that we do not observe individual exporter's prices or unit values but rather the average Free on Board (FOB) unit value of all the flows from an exporting country to a destination country, cumulated over 12 months, reported under a specific HS6 position.[7]

The selection of 416 HS6 codes flagged as product categories containing high-end varieties was based on the activities of the 75 manufacturing sector members of the *Comité Colbert*.[8] For sake of presentation, we aggregate results using the SITC-rev3 (2-digit and 4-digit) classification and group the HS6 codes into large industries. Appendix Table ST1 shows that our sample is split into 13 product categories in the SITC-rev3 2-digit classification; we use the 4-digit classification of product categories for the rest of the sample (10 product categories with the SITC-rev3 4-digit aggregation level). This construction of the 23 product categories of the SITC-rev3 classification fits better with the luxury goods "sectors". Finally, we aggregate these 23 SITC-rev3 product categories into 8 sectors: tableware, decoration, clothing, beverages, fragrances, jewellery, bags and shoes, and confectionery. We exclude the upper and lower extreme unit values, computing the difference between the unit value of each flow and the mean of the unit value of each product group, exported over the whole period considered.[9]

We use the distribution of unit values for these 416 product categories retaining only the observations between the 5th and the 95th percentiles (90% of the observations) in the BACI database, for the whole period. Thus, we work with around 87.9% of the database (of 416 products) in value, and 95.5% in quantity. This method can be compared with Hallak (2006), who defines two thresholds: the mean of the

[7] In 2005, the treatment of unit values by the UN changed, and our understanding, based on a detailed examination of the series used for our exercise, is that the reliability of this information has declined somewhat. This reinforces the need to clean the data of outliers, which is a source of trade-off since we are interested in the upper tier of the distribution. We experimented with various combinations of thresholds and concluded that the solution presented below is fairly well balanced. With the exception of Hong-Kong and Singapore which re-export a significant part of their imports, the sample of exporters and destination countries are from BACI, which suggests that this study is quite exhaustive.

[8] Since France is an important player in the sector (first world exporter of luxury goods in 2008 excluding textile, and second after Italy when textile is included), we retained the HS6 codes of the items produced by the *Maisons* of the *Comité Colbert* in order to select relevant HS6 products. The usual disclaimer applies since *Comite Colbert* was not involved in this selection.

[9] Indeed, these groupings are for the purpose of the descriptive evidence only, while the econometric exercise is performed at the HS6 level.

unit value (by product group, exporter, and year) multiplied by 5 and divided by 5. This method leads to a smaller sample (25.7% of the observations are deleted). But one of the differences is that unit values that are excluded are mainly in the low-end of the distribution (91.8% of the deleted observations). We drop the same share of extreme values from the lowest and the highest unit values (Appendix Table ST1).

Because the product categories we are interested in cover trade flows at very different prices, we focus on the high-end of the unit value distribution. We define trade flows in high-end varieties as observations in the upper decile of the distribution of unit values for each product category and year. The top 10% of the unit values represent 4.6% of our trade sample (excluding one decile of the observations), and 4.1% of total trade in value for these HS6 positions. This corresponds to only 0.4% of the quantities because the top end of the distribution of unit values is characterized by small quantity flows of high value.

The "entry price" in the upper segment is the same for all exporters and all destination markets for a given HS6-year pair. Figure 1 depicts as an illustration how the entry price evolves for two categories of items: perfumes and lipsticks, over the period considered.[10]

To summarize, we start with more than 5,000 product categories, out of which we draw 416 HS6 positions under which Colbert exporters ship their luxury products. We drop flows with extreme unit values from the distribution of unit values (a proxy for prices) u_{ijkt} for these 416 k. The high-end segment of the market is defined as varieties shipped at unit values above a threshold $\widetilde{u_{kt}}$ common to all exporting countries i and markets j for a given HS6 product category k, but it varies over time. Finally, each observation x_{ijkt} is flagged depending of the comparison of u_{ijkt} and $\widetilde{u_{kt}}$. The so-constructed dummy "high-end" is accordingly of dimension (i, j, k, t).

Descriptive statistics

World demand for the high-end segment of the market is rather pro-cyclical (Figure 2). The mean growth rate of world imports was 5.6% over the period considered. The 2009 trade crisis is observable for this

[10] Since the entry price is the same for all exporters, we would expect large swings in exchange rates to affect the market shares of countries as long as this shock is passed on to prices in foreign currency.

segment (-23.4%). If we exclude 2009, we observe a 7.3% growth rate. In 2000, 2002, and 2004, the growth rate was above 20%. Chinese exports have grown much faster than world imports (13.2% over 1994-2008), but since their initial value was low, this did not dramatically affect the relative positions of the main exporters, including the EU27 (resp. 6.2%). Overall, in dollars, world imports tripled in fifteen years (from the mid-nineties to the crisis).

The product composition of this market, shown in Figure 3, is characterized by the large share of textile items, and volatility of the value of wine imports (Champagne). Table 1 shows the world market shares of the main exporters (countries) of high-end varieties in 2009, as well as changes in the periods already examined for non-textile items. EU27 exporters controlled two-thirds of the world market in 2009, the next largest exporters being Switzerland and China. Individually, Italy, Germany, and France have market shares above that of China. Even excluding textile, the long term shift of production to China is observable, though the main short term shock is attributable to exchange rate variations leading to sizeable and opposite swings in market shares for Europe and China.[11] Overall, the EU lost 5.2% or 3.7 p.p. of its market share, while the Chinese market share has increased by more than 150%. Japan and the US lost respectively 15.0% and 19.4% of their market share over the period. Overall, these results point to the resilience of European manufacturers to competition from low wage countries for the considered market segment of labor intensive industries, outside textile.

Next, we turn to the sectoral market shares. Appendix Table ST2 shows the results for confectionery. Switzerland and Belgium are well known big players in confectionery and this applies also to high-end varieties. Belgium is the leading individual exporting country in the world for these varieties, while Switzerland is the second biggest player. The most significant redistribution of world market shares over the period considered is between Italy and Belgium, to the benefit of the latter. In the decoration sector, the most striking performance is displayed by Italy with one-third of the world market gained over the period considered here (Appendix Table ST3). The United Kingdom also performed well in contrast to France, Germany and Switzerland. In Appendix Table ST4, we observe again excellent performance

[11] This can be attributed to the euro depreciation following its introduction. Although not fully passed into dollar prices, this depreciation led to a reduction in unit values for euro area based exporters, which pushed them partly out of the last decile of the distribution considered here.

of Italy for jewelery and watches. Switzerland also managed to increase its market share over the considered period, characterized by a renaissance in Swiss brands and a decline in Japanese brands in the high-end watch market. Fragrance exports are dominated by France (Appendix Table ST5) and the next biggest exporter is Japan. In this sector, changes in market shares are limited, with gains for Japan, Ireland, and Germany, and losses for Switzerland and France. Italian exporters of high-end shoes and bags have managed to corner half of the world market (Appendix Table ST6). In this sector, the shift has been detrimental primarily to French exporters. In the textile sector, China still has only a limited market share of high-end varieties (Appendix Table ST7). Italian exporters are again the major actors, and their progress has compensated for the deceptive German performance. The increase in Chinese exports of high-end tableware is impressive as shown in Appendix Table ST8. Chinese producers managed to dominate just short of one-third of the world market in the period. Japanese exports show resilience, while German and Swiss exports declined, and the Czech republic entered the top five ranking of world exports. The last sector is wine and Champagne. France's supremacy is uncontested in this sector (Appendix Table ST9).

4. DETERMINANTS OF HIGH END EXPORT FLOWS

Empirical Strategy

Our empirical methodology aims at identifying how demand and supply side determinants shape bilateral trade flows of high-end varieties. We then estimate the effect of the standard gravity determinants, including trade costs, country size, comparative advantage and standard of living.

First, we ask whether the elasticity of exports to trade costs is different for high-end varieties and estimate the following equation:

$$T_{ijkt} = \alpha_0 + \alpha_1 HighEnd_{ijkt} + \alpha_2 Dist_{ij} + \alpha_3 Dist_{ij} \times HighEnd_{ijkt} + \delta_{it} + \mu_{jt} + \tau_k + \epsilon_{ijkt} \quad (1)$$

where T_{ijkt} is the logarithm of the bilateral trade flow between origin country i and destination country j of the HS6 product category k in year t. We capture specific patterns of high-end varieties exports,

compared to the other varieties, by including $HighEnd_{ijkt}$. This dummy variable is equal to 1 if T_{ijkt} is classified as a high-end trade flow and 0 otherwise meaning that u_{ijkt}, its unit value, is above the "entry price" $\widetilde{u_{kt}}$. This threshold $\widetilde{u_{kt}}$ is defined as the 9th decile of the unit value distribution, by HS product category k and year t.

Trade costs are proxied by the logarithm of the distance $Dist_{ij}$. Then, we estimate the differential effect of distance for high end varieties, by including an interaction term between the logarithm of the distance and the classification of the trade flow as a high-end variety ($Dist_{ij} \times HighEnd_{ijkt}$). This means that we capture the effect of the distance on trade flows in high-end varieties with $\alpha_2 + \alpha_3$. This specification also controls for omitted and unobservable variables and for multilateral resistance terms, thanks to the inclusion of fixed effects at the country of origin and year levels, at the country of destination and year levels, as well as at the HS6 product level. All estimates are run using clustered standard errors at the exporting country and year level.

Second, we investigate the role of exporting country size (GDP) and comparative advantage (GDP per capita) on their exports of high-end varieties. We use the following specification:

$$T_{ijkt} = \beta_0 + \beta_1 HighEnd_{ijkt} + \beta_2 Dist_{ij} + \beta_3 GDP_{it} + \beta_4 GDPCAP_{it} + \beta_5 Dist_{ij} \times HighEnd_{ijkt} + \beta_6 GDP_{it} \times HighEnd_{ijkt} + \beta_7 GDPCAP_{it} \times HighEnd_{ijkt} + \lambda_j + \eta_{jkt} + \upsilon_{ijkt} \quad (2)$$

where GDP_{it} ($GDPCAP_{it}$) is the logarithm of the GDP (GDP per capita) of the exporting country i in the year t. We estimate the marginal effect of the size (comparative advantage) of the exporting country on its bilateral trade flows in high-end varieties by introducing the interaction between the logarithm of the GDP (GDP per capita) of the country i in the year t and $HighEnd_{ijkt}$. We control for omitted variables and multilateral resistance terms including fixed effects at the importing country $j \times$ product $k \times$ year t level.

We then replicate this exercise focusing on destination country determinants; GDP and GDP per capita

are respectively controlling for size and living standard of the market and we estimate:

$$T_{ijkt} = \gamma_0 + \gamma_1 HighEnd_{ijkt} + \gamma_2 Dist_{ij} + \gamma_3 GDP_{jt} + \gamma_4 GDPCAP_{jt} + \gamma_5 Dist_{ij} \times HighEnd_{ijkt} + \gamma_6 GDP_{jt} \times HighEnd_{ijkt} + \gamma_7 GDPCAP_{jt} \times HighEnd_{ijkt} + \chi_i + \varphi_{ikt} + \omega_{ijkt} \quad (3)$$

where GDP_{jt} ($GDPCAP_{jt}$) is defined as the logarithm of the GDP (GDP per Capita) of the importing country j in the year t, and $GDP_{jt} \times HighEnd_{ijkt}$ ($GDPCAP_{jt} \times HighEnd_{ijkt}$) is the interaction term between the logarithm of the GDP (GDP per capita) of the importing country j at the year t and the dummy variable which states whether T_{ijkt} is a high-end variety ($HighEnd_{ijkt}$). We also include fixed effects at the exporting country i × product category k × year t level.

In equation (2) , $\beta_3 + \beta_6$ captures the effect of size (resp. ($\beta_4 + \beta_7$) for the effect of comparative advantage) of exporters on high-end exports. Similarly, in equation (3), $\gamma_3 + \gamma_6$ captures the effect of size (resp. ($\gamma_4 + \gamma_7$) for living standard) of importers.

Focusing on French exports, Martin & Mayneris (2013) find a null effect of distance and a positive effect of the exporter's GDP per capita on the high-end export flows of French firms. They show also that the positive effect of $GDPCAP_{jt}$ is significantly larger in the case of high-end varieties. We aim at estimating the systematic effect of distance, size and wealth of both the exporting and importing countries among all the exporters and importers.

Results

Baseline Results

Distance: First, we estimate equation (1) to capture the potential differential effect of distance for high-end trade flows. OLS estimates of equation (1) are shown in column 1 of Table 2. We find the expected negative impact of distance on trade flows, but less so for trade flows of high-end varieties. Second, we introduce the exporting country determinants of trade flows in column 2, estimating equation (2). The effect of distance on both high-end and other varieties is similar to the results in column 1. Moreover,

the size (GDP) of the exporting country is found to have a positive and significant effect, in the case of both high-end and other varieties. This result is very standard in the trade literature.

Exporters' Comparative Advantage: More interestingly, being a rich country (disadvantaged in labor intensive activities) shapes exports towards high-end varieties. Figure 4 suggests that countries with higher GDP per capita are also larger exporters of high-end varieties, though this is driven by the impact of size. Our estimation controlling also for exporter size confirms a negative and significant effect of high-income on goods' exports in general. This reflects the shift in comparative advantage of these countries to services. In contrast, for high-end exports, exporter's income is found to almost compensate for this effect: the disadvantage of high income countries almost disappears for high-end varieties.

Importers' Living Standards: Table 2 column 3 replicates this exercise, but introduces destination country specific explanatory variables in place of exporter specific ones. We then estimate equation (3), using an OLS estimator. The effect of distance on both types of trade flows is still robust. We observe that trade flows of non-high-end varieties are positively driven toward large and rich countries: the effects of GDP_i and $GDPCAP_i$ are positive and significant. The effect of exporting country size is the same in the case of high-end flows. However, we find that trade flows of high-end varieties are *less* sensitive to the destination country living standard. The total effect of the importer's GDP per capita on high-end trade flows is still positive, but significantly lower than in the case of other varieties. This result contrasts with Martin & Mayneris (2013) findings for France only, and may be driven by the difference in the sample of exporters (recall that we consider all exporting countries shipping high-end varieties). We indeed observe that France is a country exhibiting better performances in this sector than expected, as well as Italy. The two are clear outliers.

Complementary Results

Heterogeneous Living Standards' Effect: To investigate these apparently contradictory results further, we estimate equation (3) separately for each exporting country. We include HS product categories and year fixed effects in place of controls in column 3. Column 4 presents the results for France: all results are qualitatively similar except for the effect of $GDPCAP_j \times HighEnd$. Indeed, in the special case of

France, our findings are similar to those of Martin & Mayneris (2013) using French customs data: exports from France are more sensitive to the destination country wealth considering when considering high-end varieties. We present the results for three other large exporters of high-end varieties: Italy (column 5), Switzerland (column 6) and China (column 7). The effect of $GDPCAP_j \times HighEnd$ is positive and significant in the case of Italy and Switzerland. However, it is negative and significant for China. In other words, China exports more to rich countries, but exports a lower proportion of high-end varieties.

Luxury Brands: What are the potential origin country specific determinants explaining the different effects of $GDPCAP_j \times HighEnd$ across countries? Anecdotal evidence provided by our four largest exporters suggest that luxury industries in the leading European countries on the one hand, and in China on the other hand, perform differently. We can firstly characterize luxury industries in our set of exporting countries by the number of leading luxury brands associated with them. The "top100 luxury brands" ranking of the World Luxury Association[12] (WLA) provides a convenient approximation for our analysis. We count the number of brands that appear in this ranking by nationality. Figure 5 shows the heterogeneity in the number of top national luxury brands across exporting countries. Large exporters of high-end varieties on average are associated with at least one luxury brand in the top100 ranking of the WLA. However, even among leading exporters of luxury varieties, the number of brands they control differs widely (from 1 in China and Japan, to 24 in France). Table 3 column 1 shows that destination countries' wealth increases the export flows significantly more when the exporting country holds a higher number of top luxury brands. This means that being associated with a higher number of leading luxury brands increases the γ_7 observed for a given exporting country. We also measure the size of exporters of high-end varieties by calculating the total value of the high-end trade flows by country over the period. Larger exporters of high-end varieties are not found to be characterized by a larger γ_7 (column 2). This conclusion holds also if we test for the effect of the GDP per capita of these exporting countries (column 3). These results are robust to the introduction of these three explanatory variables in the same regression (column 4). They also hold when we use a binary dependent variable that is equal to 1 if γ_7 is positive and 0 otherwise (column 5). The results are very similar also if we restrict our sample to the

[12] See: http://www.top100luxury.com

67 coefficients γ_7 that are significant at the 5% level and use a dummy variable that is equal to 1 if γ_7 is significantly positive (at the 5% level) and zero otherwise (column 6). Finally, we find qualitatively the same effect using a non-linear (probit or a logit) estimator.

These findings support the idea that exports of high-end varieties increase with the living standard of the destination country, but only for exporting countries relying on a rich portfolio of luxury brands. Indeed, they are the only ones whose exports of high-end varieties increase more when they are shipped to the wealthier destination countries compared to their exports of other varieties. These countries are mainly European countries. Standard management theories related to luxury brands, such as Doyle (2002), point out that luxury firms charge prices at the top of the quality distribution, and that their marketing is mostly image-driven (compared to other goods). However, anecdotal evidence, notably the recent case of Jaguar, shows that huge expenditure on marketing activities does not ensure firms' profitability. Atwal & Williams (2009) highlight that the management of the luxury brand is a major determinant of the probability of long-term success for these firms, which Kapferer & Bastien (2009) argue is due to strong specificities in their management. Luxury brands have to convey positive values beyond the intrinsic quality of the good, and provide goods that are socially important from the consumers' point of view (Han *et al.*, 2010). Among other characteristics, Kapferer & Bastien (2009) stress that luxury goods firms have to convince consumers that their products are scarce and unique, which makes their brands exclusive. Interestingly, this is not just a matter of image: reputation is more easily achieved by brands that have a long history Dubois *et al.* (2005). The French luxury houses that belong to the *Comité Colbert*, and a few other European firms are good examples of brands capitalizing on an ancestral heritage. Our empirical strategy suggests that it is likely to explain the larger wealth elasticity of the export flows of high-end varieties this leading European countries experience.

5. Conclusion

The upgrading of emerging countries' capabilities combined with rapid export and GDP growth has led to a profound redistribution of world market shares of manufactured goods since the mid 1900s. Against this background, European commercial performance (unlike that of the US and Japan) was resilient

until the crisis of 2008. This resilience was particularly noticeable in the upper price range of the market. Indeed, the success of emerging countries in the world market, which is leading to increased income per capita as well as internal income disparities, has also inflated demand for high-end varieties of goods. The combination of a well established brand, specific skills, and dedicated networks of wholesalers has given a first-mover advantage to European producers. On the other hand, these industries rely on labor intensive activities, although generally skilled. This production function allows room for maneuver to producers or sub-contractors in developing economies. Overall, this supports the idea of opposing forces. But in practice, many traditional sectors, requiring excellent skills, have managed to keep alive European brands and know-how in industries that have been wiped out by competition from low-wage countries.

This paper presented an empirical investigation of the distribution of the high-end trade flows across a wide range of exporters and importers. We used a list at the HS 6-digit level of the product categories of interest and reconstructed this high-end segment of international trade using information on the distribution of unit values of bilateral flows. Overall, we observe that a combination of product differentiation, branding and specific skills explains the resilience of the EU producers in high-end varieties. Although Europe is still the main player in this arena, there has been a shift in world market shares, and a sharp increase in Chinese textile exports.

The determinants of export performance in the high-end segment of the market are different from those in other segments, as shown by a standard gravity framework. Overall, exporters of high-end varieties suffer less from trade costs than exporters of other varieties. Also, the positive effect of the destination country wealth on exports is significantly larger for high-end varieties, but only in the case of a few exporting countries. These particular countries benefit from a large number of well-established luxury brands and capitalize on their historical reputation in the production of luxury goods. Finally, over the period studied, this exclusive club of exporting countries reaped relatively more benefits from the increasing wealth in emerging importing countries, when exporting high-end varieties.

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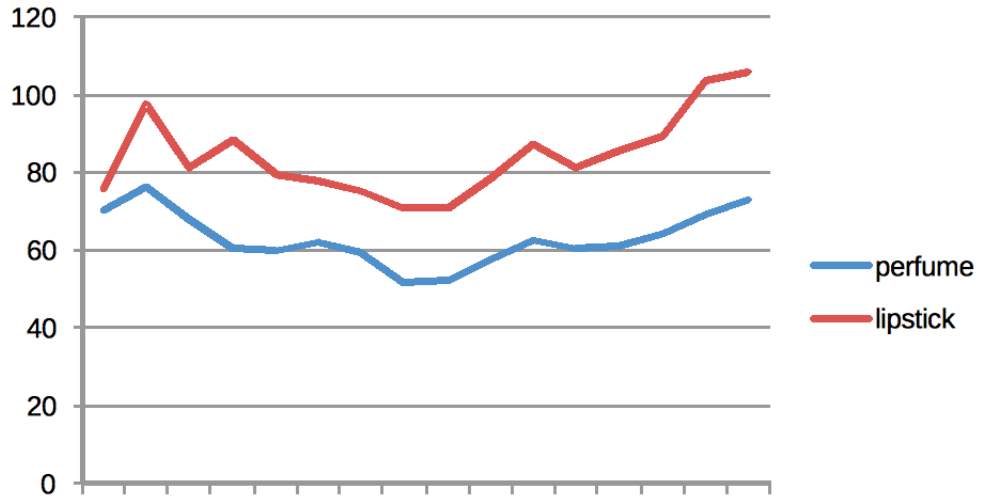
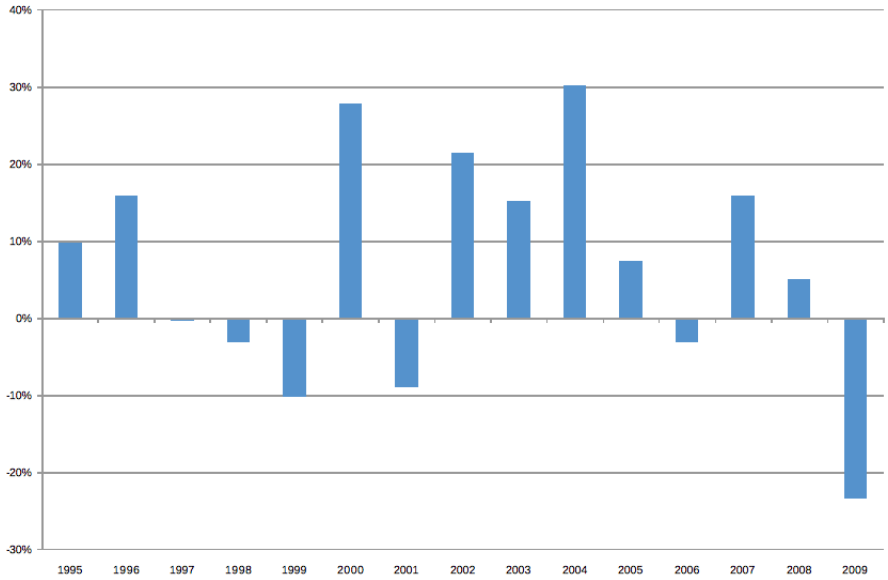
GRAPHS AND TABLES

Figure 1 – Entry price in the high-end segment for two HS6 positions (1994-2009)



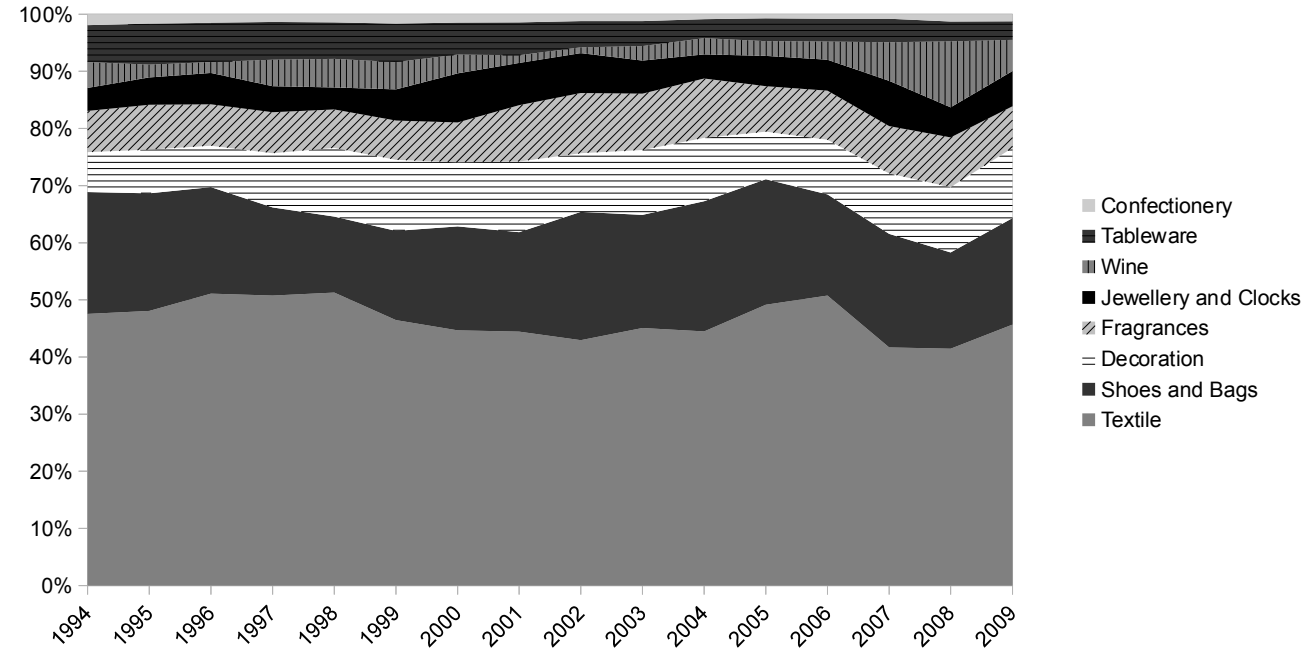
Source: BACI, authors calculation.

Figure 2 – Annual growth rate of the world market (current value) for high-end varieties (percent)



Source: BACI, authors calculation.

Figure 3 – Structure of market for high-end varieties, by product category, 1994-2009 (share in %)



Source: BACI, authors calculation.

Table 1 – World market share changes - Largest exporters of high-end varieties

	p.p. change			percentage
	1994-2000	2000-2009	1994-2009	2009
EU27	-14.9	11.2	-3.7	67.9
Switzerland	-3.3	3.3	-0.1	7.7
China	11.8	-9	2.9	4.7
Japan	0.4	-0.9	-0.5	2.9
USA	2.6	-3.1	-0.5	2.1

Note: All exporters having a market share of at most 3% in 2009 or in 1994. The last column is the percentage share of world market. The first three columns are percentage point changes in world market shares. Countries are ranked by decreasing value of their world exports of high-end products in 2009.
Source: BACI-CEPII, authors calculation.

Figure 4 – Total high-end exports (value) and mean GDP per Capita, by exporting country (1994-2009)

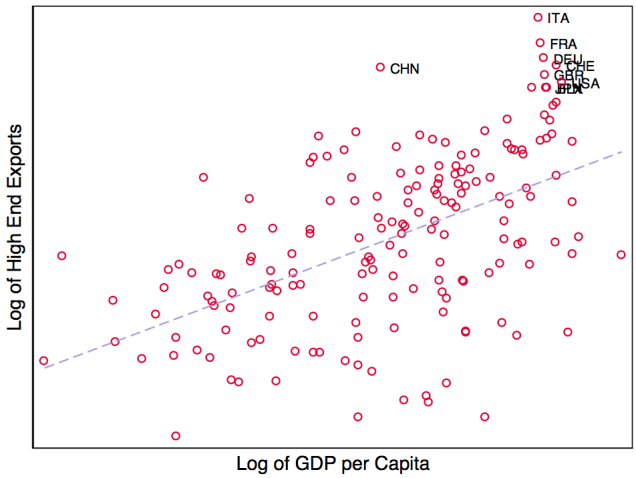
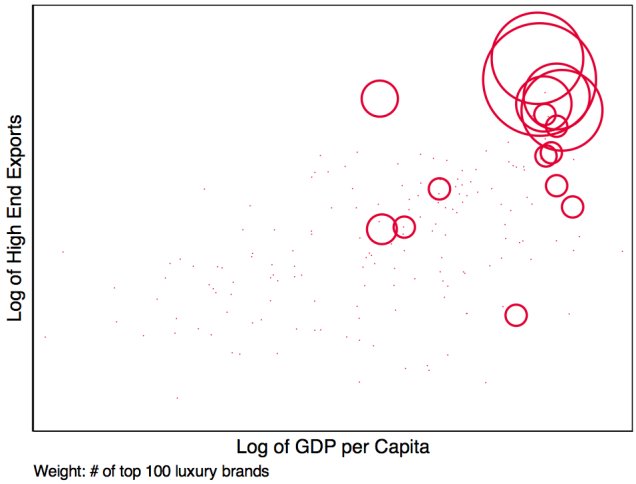


Figure 5 – Total high-end exports (value) and luxury brands, by exporting country (1994-2009)



Weight: # of top 100 luxury brands

Table 2 – Gravity determinants of high-end trade flows

Dependent Variable:	Log of trade flows						
Specifications	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sample:	World	World	World	France	Italy	Switzerland	China
$Distance$	-0.895***	-0.806***	-0.879***	-0.885***	-0.875***	-0.517***	-0.0212**
	(0.0141)	(0.0199)	(0.0144)	(0.00646)	(0.00545)	(0.0194)	(0.00873)
$Distance \times HighEnd$	0.131***	0.0861***	0.145***	0.307***	0.168***	0.142***	0.135***
	(0.0112)	(0.0166)	(0.0121)	(0.0109)	(0.00893)	(0.0182)	(0.0431)
GDP_i		0.626***					
		(0.0247)					
$GDP_i \times HighEnd$		-0.0322					
		(0.0253)					
$GDPCAP_i$		-0.296***					
		(0.0302)					
$GDPCAP_i \times HighEnd$		0.242***					
		(0.0315)					
GDP_j			0.461***	0.486***	0.605***	0.512***	0.747***
			(0.00519)	(0.00275)	(0.00248)	(0.0129)	(0.00344)
$GDP_j \times HighEnd$			0.00256	0.0700***	0.0736***	0.0487***	-0.132***
			(0.00643)	(0.00491)	(0.00417)	(0.0121)	(0.0105)
$GDPCAP_j$			0.382***	0.270***	0.633***	0.334***	0.488***
			(0.0109)	(0.00544)	(0.00483)	(0.0227)	(0.00604)
$GDPCAP_j \times HighEnd$			-0.0675***	0.124***	0.0375***	0.0648***	-0.186***
			(0.0106)	(0.00913)	(0.00799)	(0.0208)	(0.0154)
$HighEnd$	-1.256***	-2.463***	-0.727***	-5.241***	-3.478***	-2.756***	3.709***
	(0.0871)	(0.459)	(0.237)	(0.153)	(0.127)	(0.387)	(0.527)
Country i × Year FE	Yes	.	.	.	.	.	.
Country j × Year FE	Yes	.	.	.	.	.	.
HS6 FE	Yes	.	.	Yes	Yes	Yes	Yes
Year FE	.	.	.	Yes	Yes	Yes	Yes
Country i × HS6 × Year FE	.	.	Yes	.	.	.	.
Country j × HS6 × Year FE	.	Yes	.	.	.	.	.
Observations	9,620,162	9,620,162	9,620,162	366,028	420,081	190,534	396,827
R-squared	0.404	0.421	0.484	0.519	0.606	0.524	0.554

Note: Robust standard errors (clustered at the origin country and year level in specifications 1 to 3, and at the HS6 and year level in specifications 4 to 7) in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions for all specifications. Constant is not shown. $HighEnd$ is a dummy variable that identifies high end flows. All explanatory variables except $HighEnd$ are in logarithm.

Table 3 – Determinants of the destination country-specific wealth effect on high-end trade flows

Dependent Variable:	Coefficient on $GDPCAP_j \times HighEnd$ ($\hat{\gamma_7}$)				$Dummy\ variable:$ $y = 1\ if\ \hat{\gamma_7} > 0$ $y = 0\ otherwise$	
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Sample:	All	All	All	All	All	Sign. $\hat{\beta_4}$
$\#\ of\ brands_i$	0.00616***			0.00629***	0.0327***	0.0320***
	(0.000898)			(0.00137)	(0.00793)	(0.00776)
$HighEnd\ Exports_i$		0.00649		-0.000722	-0.0149	-0.0122
		(0.00485)		(0.00649)	(0.0191)	(0.0241)
$GDPCAP_i$			0.0729	0.00485	-0.274	-0.152
			(0.0850)	(0.110)	(0.340)	(0.415)
Observations	175	175	175	175	175	67
R2 / Pseudo R2	0.041	0.009	0.003	0.041	0.138	0.241

Note: Robust standard errors (clustered at the origin country and year level in specifications 1 to 3, and at the HS6 and year level in specifications 4 to 7) in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions for all specifications. Constant is not shown. $HighEnd$ is a dummy variable that identifies high end flows. All explanatory variables except $HighEnd$ are in logarithm.

APPENDIX

APPENDIX: SUPPLEMENTARY TABLES

Table ST1 – Determination of outliers and high-end varieties in BACI (1994-2009)

	(1) # of obs.	(2) % of total # of obs.	(3) Trade value	(4) % of total trade value	(5) Trade quantity	(6) % of total trade quantity
Total trade	11,980,955		6,979,103,920		1,083,620,678	
⋆ ***extreme values = drop some percentiles of the whole distribution of unit values***						
drop 1st and 99th pctle	11,741,336	98.00	6,659,700,083	95.42	1,073,730,023	99.09
high end = 10 %	1,171,109	9.97	281,730,157	4.23	2,882,867	0.27
% of total trade		9.77		4.04		0.27
drop 5th and 95th pctle	10,782,861	90.00	6,135,348,537	87.91	1,034,580,086	95.47
high end = 10 %	**1,075,071**	**9.97**	**282,853,180**	**4.61**	**3,987,900**	**0.37**
% of total trade		**8.97**		**4.04**		**0.27**
drop 1st and 10th dcle	9,584,764	80.00	5,613,256,728	80.43	992,370,249	91.58
high end = 10 %	954,974	9.96	298,237,051	5.31	5,545,479	0.56
% of total trade		7.97		4.27		0.51
⋆ ***extreme values = Hallak (2005)*** $->$ ***drop mean*5, /5***						
drop > mean*5	11,729,659	97.90	6,896,016,719	98.81	1,083,412,021	99.98
drop < mean /5	9,158,583	76.44	5,585,688,876	80.03	582,413,017	53.75
total drop	8,907,287	74.35	5,502,601,675	78.84	582,204,360	53.73
⋆ ***extreme values = Hallak (2005)*** $->$ ***drop mean*10, /10***						
drop > mean*10	11,881,441	99.17	6,927,320,355	99.17	1,083,565,979	99.99
drop < mean /10	10,254,654	85.59	6,029,206,529	86.39	668,105,524	61.65
total drop	10,155,140	84.76	5,977,422,964	85.65	668,050,825	61.65

Note: observations are cumulated over the period in column 1. Values in the third columns are also cumulated and expressed in thousands of dollar. Source: BACI-CEPII, authors calculation.

Table ST2 – Change in world market share of main individual exporters: high-end confections

Confectionery	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	2.01	-14.45	-12.44	32.45
Belgium-Luxembourg	-3.58	10.16	6.59	11.77
Switzerland	-9.26	3.47	-5.80	11.17
France	0.35	5.14	5.49	8.50
Argentina	-2.19	7.69	5.50	7.92
Italy	5.01	-16.51	-11.50	6.30

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST3 – Change in world market share of main individual exporters: high-end decoration varieties

Decoration	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	0.31	31.69	32.00	72.91
Italy	0.69	32.95	33.63	37.10
United Kingdom	2.47	-1.14	1.33	8.64
Germany	-5.35	4.74	-0.61	7.65
France	2.55	-5.00	-2.45	5.59
Switzerland	-6.43	-0.04	-6.46	4.24

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST4 – Change in world market share of main individual exporters: high-end jewellery and watches

Jewellery & Watches	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	-25.09	15.64	-9.45	60.10
Italy	7.84	9.27	17.11	33.76
Germany	-20.04	8.93	-11.10	16.71
Switzerland	-1.51	11.71	10.20	16.34
USA	-7.46	3.09	-4.37	5.85
Japan	-1.77	-1.90	-3.67	5.40

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST5 – Change in world market share of main individual exporters: high-end fragrances

Fragrances	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	-8.10	0.38	-7.73	55.36
France	-5.49	-0.67	-6.16	28.15
Japan	5.23	2.38	7.61	16.74
Switzerland	-14.12	8.03	-6.09	13.50
Germany	0.69	3.82	4.52	12.19
Ireland	-0.24	3.22	2.99	4.04

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST6 – Change in world market share of main individual exporters: high-end shoes and bags

Shoes & Bags	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	-20.92	28.82	7.90	79.40
Italy	-22.10	38.19	16.09	57.36
France	-5.65	-5.51	-11.16	7.06
Switzerland	-2.00	4.63	2.64	6.91
Belgium - Luxembourg	6.57	-1.28	5.29	5.44
Germany	-0.30	1.74	1.44	4.81

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST7 – Change in world market share of main individual exporters: high-end varieties of textile

Textile	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	-15.49	1.66	-13.84	65.44
Italy	1.46	10.89	12.35	44.33
Belgium - Luxembourg	1.38	5.80	7.18	7.64
China	7.39	-2.97	4.41	7.55
Switzerland	-1.89	3.58	1.69	6.92
Germany	-12.12	0.18	-11.94	6.40

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST8 – Change in world market share of main individual exporters: high-end varieties of tableware

Tableware	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	-1.46	-19.03	-20.48	35.42
China	4.96	22.38	27.34	30.27
Switzerland	-5.62	-4.09	-9.71	14.00
Japan	0.96	3.60	4.56	10.02
Czech Republic	0.36	6.55	6.91	7.68
Germany	-3.50	1.22	-2.28	6.95

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST9 – Change in world market share of main individual exporters: high-end varieties of wine

Textile	p.p. var 94-00	p.p. var 00-09	p.p. var 94-09	% 2009
EU27	3.56	-0.88	2.68	90.38
France	-45.54	52.53	6.99	85.69
Malaysia	0.25	3.58	3.83	4.36
United kingdom	4.09	-4.12	-0.03	2.42
Switzerland	1.74	-1.24	0.50	2.22
Argentina	0.16	0.62	0.78	0.87

Note: 5 largest exporters in 2009. Source: BACI-CEPII, authors calculation. We present the p.p. change in market shares for the top five exporters in 2009, for two sub-periods (1994-2000 and 2000-2009), and for the whole period (1994-2009). The last column gives the percentage market share in 2009.

Table ST10 – list of selected 416 product categories (HS-6 digits and SITC)

Sector	SITC3	HS-6 digits														
Confectionery	06	170490														
	07	180620	180631	180632	180690											
Decoration	65	570110	570190	570210	570231	570232	570239	570241	570242	570249	570251	570252	570259	570291	570292	570299
		570310	570320	570390	570490	570500	580430	580500	630120	630130	630140	630190	630210	630221	630222	630229
		630231	630232	630239	630240	630251	630252	630253	630259	630260	630291	630292	630293	630299	630311	630312
		630319	630391	630392	630399	630411	630419	630491	630492	630493	630499	630790	630800			
	82	940140	940150	940161	940169	940171	940179	940180	940340	940350	940360	940370	940380			
	8921	490110	490191	490199	490300	490591	490599									
	8928	491000														
	8993	961320	961330	961380												
Jewellery	8842	900311	900319	900410	900490											
	8853	910111	910112	910119	910121	910129	910191	910199								
	8854	910211	910212	910219	910221	910229	910291	910299								
	8859	911390														
	8952	960810	960820	960839	960840	960891	960910									
	8973	711311	711319	711320	711411	711419	711420	711610	711620							
	8974	711590														
	96	711810														
Fragrances	55	330300	330410	330420	330430	330491	330499	330510	330710	330720	330730	330790	340111	340119	340120	
Hand Bags and Shoes	61	420100	420500													
	83	420211	420212	420219	420221	420222	420231	420232	420239	420291	420292	420299	960500			
	85	640320	640330	640351	640359	640391	640399	640411	640419	640420	640510	640520	640590			
Textile	84	420310	420329	420330	420340	430310	430390	610110	610120	610130	610190	610210	610220	610230	610290	610311
		610312	610319	610321	610322	610323	610329	610331	610332	610333	610339	610341	610342	610343	610349	610411
		610412	610413	610419	610421	610422	610423	610429	610431	610432	610433	610439	610441	610442	610443	610444
		610449	610451	610452	610453	610459	610461	610462	610463	610469	610510	610520	610590	610610	610620	610690
		610711	610712	610719	610721	610722	610729	610791	610792	610799	610811	610819	610821	610822	610829	610831
		610832	610839	610891	610892	610899	610910	610990	611010	611020	611030	611090	611110	611120	611130	611190
		611231	611239	611241	611249	611300	611511	611512	611519	611520	611591	611592	611593	611599	611691	611692
		611699	611720	611780	611790	620111	620112	620113	620119	620191	620192	620193	620199	620211	620212	620213
		620219	620291	620292	620293	620299	620311	620312	620319	620321	620322	620323	620329	620331	620332	620333
		620339	620341	620342	620343	620349	620411	620412	620413	620419	620421	620422	620423	620429	620431	620432
		620433	620439	620441	620442	620443	620444	620449	620451	620452	620453	620459	620461	620462	620463	620469
		620510	620520	620530	620590	620610	620620	620630	620640	620690	620711	620719	620721	620722	620729	620791
		620792	620799	620811	620819	620821	620822	620829	620891	620892	620899	620910	620920	620930	620990	621010
		621020	621030	621040	621050	621111	621112	621120	621131	621132	621133	621139	621141	621142	621143	621149
		621210	621220	621230	621290	621310	621320	621410	621420	621430	621440	621490	621510	621590	621600	621710
		621790	650300	650400	650510	650590	650692	650699								
Tableware	66	691110	691190	691200	691310	691390	691410	691490	701321	701329	701331	701332	701339	701391	701399	
	69	821110	821191	821193	821410	821510	821591	821599								
Beverages	11	220410	220421	220429	220820											

Note: This table presents the list of the products used in this paper. It also shows their correpondances in the HS-6 digits classification as well as in the SITC3 classification.